JOURNAL

OF THE

Bombay Natural History Society.

March 1922.

1

VOL. XXVIII.

No. 2.

THE GAME BIRDS OF INDIA, BURMA AND CEYLON. BY

E. C. STUART BAKER, F.L.S., F.Z.S., M.B.O.U., C.F.A.O.U.

PART XXXI.

(Continued from page 22 of this Volume.)

(With a plate.)

GENUS ALECTORIS, Kaup.

Hartert in Novitates Zoologicæ has dealt very fully with the genus we in India have hitherto known as Caccabis. In Volume XXIV, p. 275, he shows that the proper name for this genus is Alectoris and in the following pages he deals with the species and sub-species at length, and with his usual care and thoroughness, although unfortunately he does not give us a summary of the results of his deductions at the end in accordance with his general custom. In so far as our Indian birds are concerned, I follow this paper.

The typical form of the species *Alectoris* graca graca is found, as its name denotes in Greece and thence various geographical forms range over practically the whole of South. West, Central and East Europe, Western and Central Asia to India, two races entering our limits.

In Alectoris the sexes are alike. They are Partridges of moderate size, and almost uniform upper plumage, but have the flanks conspicuously barred with black and chestnut, the tail is rounded and about equal to two-thirds the length of the wing; the latter is short and

rounded, the first primary being equal to the 5th or 6th; the tarsus is very powerful and armed with a short blunt spur in the male.

KEY TO SUB-SPECIES.

A.—Darker	• • •			Alectoris græca chukar.
B.—Paler	• •	• •	••	. Alectoris græca pallescens.

ALECTORIS GRÆCA CHUKAR.

The Indian Chukor.

Tetrao kakelik—Falk, Beitr. zur. topogr, Kennt. Russ. Reich., III., p. 390 (1786), (Russian Turkestan).

¹ Perdix kakelik—Lath., Gen. Syn. Suppl., II., p. 282 (1802); id., Gen. Hist., VIII., p. 290 (1823).

Perdix chukar-Gray, Ill. Ind. Zool., I., pl. 54 (1830-32), (India); Gould, Cent. Him. B., pl. 71 (1832).

Chakura pugnax-Hodgs., Madr. Jour., 1837, p. 505.

Caccabis chukar-Gray, List of Birds, pt. 3, Gall., p. 36 (1844); id., Cat. Hods. ed., I., p. 127 (1846); Adams, P. Z. S., 1858, p. 502 (W. Himalayas and Punjab); Irby, Ibis, 1861, p. 236 (Kumaon); Jerdon, B. of I., III., p. 564 (1863); Tytler, ibid, 1868, p. 203-(Mussoorie); Pelzeln, ibid. p. 321 (Koteghur); Beavan, ibid, p. 384 (Simla); Brooks, ibid. 1869, p. 60 (Almorah); Hume, Nest and Eggs. p.589 (1873); id., Str. Feath., I., p. 226, 1873 (Sindh); Cock. and Marsh., ibid. p. 358 (Murree); Ball, ibid. III., p. 208 (1875), (Suliman Hills); Butler, Cat. B. Sind., p. 54 (1879); Hume and Marsh., Game-B. II., p. 34 (1879): Scully, Str. Feath. VIII., pp. 348, 366, 367 (1879), (Nepal); Barnes, ibid. IX., pp. 219, 458 (1880). (Chaman); Biddulph, ibid, p. 358 (Gilgit); Wardlaw-Ram., Ibis, 1880, p. 70 (Kurram Valley); Biddulph, Ibis, 1881, p. 93 (Gilgit); Scully, Str. Feath., X., p. 139 (1881), (Gilgit); Marshall, Ibis, 1884, p. 423 (Chamba); St. John, Ibis, 1899, p. 175 (Quetta); Oates' ed., Hume's Nests and Eggs, III., p. 431 (1890); Ogilvie-Grant. Cat. B. M., XXII., p. 113 (1893); id., Game-B., I., p. 91 (1895); Oates' Game-B., I., p. 179 (1898); Blanf., Avifauna, B. I., IV., p. 131 (1898); Davidson, Ibis, 1898, p. 39 (Kashmir and Sind); Marsh. J. B. N. H. S., XV., p. 353 (Quetta); Fulton, ibid, XVI., p. 61 (1904), (Chitral); Rattray, ibid, XVI., p. 663. Murree; Whitehead, Ibis, 1908, p. 269 (Kohat); id., J. B. N. H. S., XX., p. 966 (1911), (Kurram); Meinertzhagen, ibid, XXIII., p. 363 (1914), (Quetta); Whistler, Ibis, 1916, p. 99 (Jhelum); Jones, J. B. N. H. S., XXVI., p. 619 (1919), (Simla).

Alectoris graca-Meinertzhagen, Ibis, 1920, p. 186 (Quetta).

Alectoris graca chukar—Hartert, Nov. Zool., XXIV., p. 280 (1917). Vernacular Names.—Chukar (Hind.); Kabk. (P.); Kau-kau, (Kashmir); Chukru (Chamba); Zarkar (Pushtu).

THE GAME BIRDS OF INDIA, BURMA AND CEYLON. 307

Description-Adult Male and Female.-Forehead and lines through the eye, down the neck and meeting as a gorget between the throat and upper breast, black; next the forehead pure grey, this colour running back as an indistinct supercilium, often albescent posteriorly: crown vinous red changing to ashy on hind neck and again to vinous red on back and scapulars, and then once more to ashy on lower back. rump, and upper tail coverts; ear-coverts dull chestnut; middle tail feathers ashy drab, outer feathers the same but pale chestnut on the terminal half; outer scapulars with pure pale grey centres; smaller and median coverts and innermost secondaries like the back; outer wing-coverts ashy; primaries and secondaries brown with a yellowish buff patch on the centre of the outer webs; point of chin and below gape black; lores, cheeks, chin and throat white-tinged with buff to a varying extent; below the black gorget the breast is ashy-tinged more or less with brown and vinous at the sides, the lower breast being generally a pure French grey; abdomen, vent, thighs and lower tait coverts chestnut-buff or buff; feathers of the flanks grey at the base, with two black bars divided by pale buff and with chestnut tips.

Colours of Soft Parts.—" The irides are brown, yellowish, orange, or even reddish brown; the margins of the eyelids crimson or coral to brick red; the eyelids themselves grey; the bills are crimson to deep coral red, often dusky on culmen, and generally so at base and about the nostrils; the legs and feet vary from coral pink to deep-red; claws dusky brown. In young birds the bilt is brownish black and the legs and feet orange-red."

Measurements.—This bird varies most extraordinarily in size, but the very great majority of the specimens available for examination have not been sexed, and though there is no doubt that the males average bigger than the females, the extremes of size seem to be much the same in both sexes. The wing runs from 146 to 180 mm., both of these extremes being specimens from the Simla Hills, the average of 80 birds is 157 mm. Tarsus 41 to 52 mm., culmen 19 to 21 mm.; tail 78 to 105 mm.

Hume gives the weights as " male 19 to 27 ozs., females 13 to 19 ozs."

Young Birds of the year, otherwise adult in plumage, often retain some of the barred wing quills of the first plumage bird.

Young Bird in First Plumage dull brownish grey, each feather above with white tip and two black spots next it; head a little more rufescent; tail grey with mottley bars of black and white, the outer feather tinged with rufous; below dirty brownish-white with faint brown bars.

Chick in Down.—Crown pale bright rufous; above pale fulvous, with four stripes of speekled rufous and black; wings pale fulvous, mottled rufous and black; below pale fulvous, a little deeper on chest.

Distribution.—Through the Himalayas as far East as Nepal, and in the hilly portions of the Punjab. Not in Sind or in the extreme North of Kashmir and Ladak.

Nidification .- The Chukor breeds from practically the level of the plains up to 15.000 and 16.000 feet, but appears to be most common between about 4,000 and 10,000 feet. The altitude, however, alters the time of breedings considerably ; in the foot-hills and lower elevations it lays in April and early May, a few eggs having been found in the end of March; in the middle ranges, say from 4,000 to 6,000 feet, it lays principally in May and early June, whilst in the highest ranges eggs have been taken well on towards the end of August. The nest is, as a rule, merely a hollow scratched in the ground, and lined with a little grass or a few leaves, sometimes, however, it makes quite a compact pad of grass, leaves and other rubbish with a well-formed depression in the centre for the eggs. Frequently it may be found in open nullahs or on rocky hill sides, merely protected from sun and rain by a rock or stone, but more often a site is selected amongst bushes, scrub, willow-bushes or ferns, which shade as well as screen it from enemies, human and otherwise. It is never, apparently, placed in very thick scrub, and certainly never in forest, but may sometimes be found in fairly long grass, especially if there are patches of rocky and bare ground close by.

A very curious exception to the above nesting sites is one described by Mr. H. Whistler in a letter to me. He writes :---

"Two nights ago, 11th June, I was going along the Hindustan-Tibet road close to Gondla, 10,000 feet, in fact only some 200 yards from the Rest-house at the entrance to the village, when my eye suddenly caught a Chukor sitting on the head of one of the pollard willows beside the road. Investigation showed that she was sitting on a well-made nest of leaves, which contained 12 eggs. These were rather stained, and there were a good many of the bird's own feathers in the nest, signs which are quoted locally as proof that the eggs are incubated. The people here are interested in this point as they take great quantities of Chukor eggs for food. I accordingly only took two eggs in order to examine them. They proved, however, to be quite unincubated, without a trace of blood but rather congealed and I fancy the potential chicks had been destroyed by the severe cold, snow and rain which had occurred a few days ago, and which has destroyed many eggs and young birds. Next morning I found that the eggs were stone cold and the bird had evidently deserted.

"The other nests I have seen here were deep hollows in the ground, well lined with bents, etc. and all were well hidden by being placed either under a stone with herbage growing in front of it, or under a briar bush or a small green plant which is very common."

THE GAME BIRDS OF INDIA, BURMA AND CATION. 304

A normal full clutch is 8 to 10 but as few as 5 or 6 eggs have been found incubated, whilst on the other hand 11 or 12 eggs are not rare and occasionally clutches are found much bigger still. Mr. Livesey records a nest of an allied Persian sub-species containing no less than 21 eggs.

In colour the eggs are generally a very pale yellowish or greyish stone colour, more or less freekled all over with pale reddish brown or pinkish purple; in some eggs there are no markings beyond these minute freekles, but in others there are a fair number of small irregular blotches of the same colour scattered here and there amongst the other markings, and in a few only these markings are still larger and more numerous. Some eggs have the ground colour a pale $caf \epsilon-au-lait$, and in some the eggs look, as described by Hume, "as if drops of white paint tinged with purple had been dropped upon them."

In shape they vary from fairly true ovals to ovato-pyriform, and the texture is close and hard and with a fair amount of gloss.

The average of 200 eggs is $43 \cdot 0 \times 31 \cdot 7$ mm. and the extremes are as follows: longest $48 \cdot 2 \times 32 \cdot 1$, shortest $37 \cdot 6 \times 30 \cdot 4$ mm.; broadest $46 \cdot 1 \times 33 \cdot 1$ mm.; most narrow $40 \cdot 1 \times 29 \cdot 0$ mm.

Habits.—The Chukor is found at practically all levels, from almost that of the plains, where these are broken and rocky and interspersed with hills and ravines, to 14,000 feet snow level and well above that to 16,000 feet or more, as the summer advances and the snow recedes. It is found in almost any kind of country other than actual forest, but where there are grass uplands it may be found in the immediate vicinity of these also. They must be amongst the most hardy and adaptive of birds, for they will stand the most extraordinary heat, such as that of the central portions of Arabia and Mesopotamia, or the bitter cold of deep snows on the higher ranges of the Himalayas. They are not, however, found in any of the more humid areas where the rainfall is prolonged over many months. Typically, they are birds of the deserts, rocky barren hills or the more moderately dry hills of the outer ranges of the Himalayas which, though well watered and wooded, have wide areas of grass land or stretches of cultivation.

According to Hume, Wilson and others, their favourite grounds seem to be grassy hillsides, with or without a certain amount of cultivation and, indifferently, whether covered with a mere scanty growth of coarse grass or fairly well covered with bushes, etc., in addition to the grass itself. In the N.-W. of its range, however, it is found in the barest and rockiest of country; great hillsides, strewn with rocks and boulders for the most part devoid of all vegetation beyond scattered tufts of withered grass, a few windbeaten and distorted bushes, and perhaps here and there in the hollows a wheat-field or some other kind of cultivation.

In the non-breeding season they collect in coveys of some size, generally of a dozen or so, often as many as 30, whilst Wilson talks of

"40, 50, or even 100." In spring, of course, they separate, and then in pairs attend to their domestic duties.

At this time of the year they are very pugnacious and their loud challenges may be heard in every direction in places where they are at all numerous. Hume describes their call as follows :---

"The tone varies, first he says 'I'm here, I'm here,' then he asks 'Who's dead ? Who's dead ? and when he is informed of the untimely decease of his pet brother and favourite sister, or perhaps his eldest son and heir, he responds, 'Oh lor! Oh lor!' in quite a mournful tone."

In India he is not much used as a fighting bird in captivity except in North-west Kashmir and a few other parts, but his cousins over most of the range inhabited by them are very commonly kept for this purpose. His character for pluck and pugnacity has ranked very high from the time of the Romans, and then, as now, large sums were won and lost over the victory or defeat of a favourite bird.

They are very easy to tame, whether caught adult or reared from the egg, and soon learn to know their masters and to follow them. They are usually kept in small cages, but are daily allowed out, practically without any restraint, and allowed to wander about in search of food, much like a farm-yard fowl. In the Grecian islands,' as a matter of fact, they seem to be kept just as any other domestic birds are, being driven out in flocks during the day, and then recalled in the evening by the children. They associate with the other members of the farmyard quite amicably, although during the breeding season the cocks fight so desperately amongst themselves.

Hume thought them to be almost entirely vegetarians, eating only seeds, grains, etc., and helping their digestion with numerous small stones. Doubtless they are mainly seed-eaters, but they also eat all kinds of small insects, especially ants, as well as caterpillars, grubs and larvæ.

From a sporting point of view the Chukor ranks fairly high amongst our Indian game-birds, though he can nowhere be bagged in the vast numbers that snipe, and grouse, duck and some of our other birds are sometimes shot.

They lie fairly well, though when first disturbed, they sometimes run a considerable distance before consenting to be flushed, but after the first flight they seldom run unless the country is absolutely bare, and even then, after running a short distance, they will generally squat close until one gets within a few feet of them, when with a whirr and a rush they are off again. They fly fast and strongly and carry shot well for their size, and as the flocks after first being flushed often scatter considerably, they furnish a number of shots, and, let us hope, a satisfactory number of kills, from the same covey. Apparently the number of birds to be found in the present day is much the same as they were fifty years ago. With hard work and long trudges one can still get 10 or 12 brace to one gun in a day's shoot, and, with luck, even 20 couple may grace the game-bag where they are most numerous.

For the table they are dry, but not ill-flavoured, and some people prefer them to the Grey and Black Partridges and even to Junglefowl.

ALECTORIS GRÆCA PALLESCENS.

Hume's Chukor.

Caccabis pallescens—Hume and Hend., Lahore to Yark., p. 383 (1875), (Kashgar); Scully, Str. Feath. IV., p. 182 (1876).

Caccabis pallidus—Hume and Hend., Lahore to Yark., p. 284 (1873); Forsyth, P.Z.S., 1874, p. 324 (Kashgar); Scully, Str. Feath.,

IV., p. 183, (1876); Sharpe, 2nd Yark, Miss., Aves, p. 121, (1891). Caccabis saxatilis chukor—Witherby, Ibis, 1903, pp. 504, 570 (S.-W.

Persia); id., ibid. 1907, p. 108 (W. Persia).

Caccabis kakelik humei.—Falk., Sarudny, Mess. Orn. Moskva, 5, p. 52 (1914).

Caccabis chukor—Swinhoe, Ibis, 1882, p. 119 (S. Afghanistan); Sharpe, Ibis, 1886, p. 498 (Bushire); Meinertzhagen, J. B. N. H. S. XXIII., p. 363, (1914), (Quetta). Cumming, ibid. XXVI., p. 294 (1918), (Fao).

Alectoris graca pallescens—Hartert, Nov. Zool., XXIV., p. 286 (1917).

Vernacular Names .- As in the last. Keklik, (Turki).

Description.—This form of Chukor differs from the last in its much paler general tint.

Distribution.—Extreme North of Kashmir, Lek, Ladak, Eastern Turkestan, Yarkand.

Nidification .- Dr. Scully records of this form :-

"It breeds from May to June, usually at an elevation of about 6,000 feet. On the 5th June a nest of the Chukor was found at Kakin Powah; it was on the ground under the edge of a rock, and well sheltered by ferns and small bushes. The nest was a nice pad of grass and leaves, and contained 7 nearly fresh eggs, which were neatly arranged, 6 in a circle. with the small ends pointing inwards, and the 7th egg filling up the centre."

Again he writes :---

"In the hills bounding the plains of Kashgaria on the south, at elevations of from 6,000 to over 12,000 feet, the birds were numerous near willow-bushes and streams. On the 30th August near Gulgun Shah, at an elevation of about 12,500 feet I found a nest of this species containing only 3 eggs. The nest was composed of a few leaves and fibres, placed in a slight depression in the ground, and covered over by a bush."

The eggs of this form cannot be distinguished from those of the last race.

Habits.—Scully records that this Chukor abounds in all the hills which surrounds the plains of Kashgaria on the North, West and South, and says :

"In the winter they seem to come down to lower elevations than they frequent in the summer; numbers are then caught and brought into Yarkand and Kashgar for sale.

"This species is rather prized by the Yarkandis on account of its fighting propensities. I have seen some battles between Chukor which I kept—not for fighting I need hardly say—the birds appearing to be decidedly pugnacious."

(To be continued.)